In the United States Court of Federal Claims

No. 07-446V

(Filed Under Seal: August 24, 2011) (Reissued: September 8, 2011)¹

************ JENNIFER HIBBARD. Review of Special Master's Vaccine Act Decision; Alleged Neurological Condition Caused by Petitioner, Vaccination: Petitioner's Failure to Establish Evidence of v. Autonomic Neuropathy; Court's Deference to Special Master's SECRETARY OF HEALTH AND Reasonable Review of Evidence. HUMAN SERVICES, Respondent. *************

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Glenn A. MacLeod, with whom were Tony West, Assistant Attorney General, Mark W. Rogers, Acting Director, Vincent J. Matanoski, Acting Deputy Director, and Gabrielle M. Fielding, Assistant Director, Torts Branch, Civil Division, United States Department of Justice, Washington, D.C., for Respondent.

OPINION AND ORDER

WHEELER, Judge.

This case is before the Court for review of Special Master Christian J. Moran's April 12, 2011 decision denying compensation to Petitioner Jennifer Hibbard under the National Vaccine Injury Compensation Program, 42 U.S.C. §§ 300aa-10 to -34 ("the Vaccine Act"). Ms. Hibbard claims that the influenza vaccination she received on

¹ This opinion originally was issued under seal on August 24, 2011. Pursuant to Rule 18(b) of the Vaccine Rules of the United States Court of Federal Claims ("Vaccine Rules"), the parties had 14 days within which to propose redactions to the opinion prior to its publication, but no such redactions were proposed. Accordingly, the opinion is herein reissued for publication, unsealed.

November 1, 2003 caused her to develop a neurological condition called "dysautonomia." This condition is defined as a malfunction of a portion of the nervous system, known as the autonomic nervous system, which regulates the activity of the cardiac muscle, smooth muscle, and glands. See <u>Dorland's Illustrated Medical Dictionary</u> 575, 1859 (32d ed. 2011).

Respondent contends, and the special master found, that although Ms. Hibbard suffers from dysautonomia, she is not entitled to recover. According to both Respondent and the special master, Ms. Hibbard has not proven the existence of a vital link in her causation chain – namely, an autonomic neuropathy, or damage to the nerves of the autonomic nervous system. For the reasons explained below, the Court affirms the special master's decision.

Factual Background

Jennifer Hibbard is an adult woman, born on February 17, 1962, whose health began to deteriorate shortly after receiving a Trivalent Influenza ("flu") vaccination on November 1, 2003. (Am. Pet. ¶ 1.) Before receiving this flu vaccination, Ms. Hibbard taught first grade at Beechwood Knoll Elementary School in Quincy, Massachusetts and led an active and generally healthy life. She had an episode of fainting on May 27, 2003. (Pet'r's Ex. 18 at 2.) At the time of the fainting episode, Ms. Hibbard's primary care physician, Dr. Amy Schoenbaum, assessed the occurrence as "probably related to some mild dehydration." (Pet'r's Ex. 23 at 230.)

Ms. Hibbard stated in an affidavit that she received a flu shot on November 1, 2003 to protect herself from the germs and illnesses that can be conveyed from frequent contact with small children in the classroom and at extracurricular events. (Pet'r's Ex. 33 at ¶ 2.) At one such school event, Ms. Hibbard offered herself for "auction," and she was scheduled to take two students who "won her" in the auction to South Shore Plaza for lunch and shopping on November 8, 2003, seven days after she received the flu vaccination. Id. at ¶ 5. Although Ms. Hibbard had experienced aches, fatigue, and nausea during the previous week, she decided not to cancel the shopping trip because she did not want to disappoint her students. Id. at ¶¶ 4, 6. During the shopping trip, however, Ms. Hibbard became very ill. Id. at ¶ 8. She "felt nauseous, sweaty, flushed, chills, dizzy, as though [she] might vomit and have diarrhea." Id. The lights bothered her, and other people's movement made her feel off-balance. Id. at ¶ 9. At one point, she felt as though she might pass out. Id. at ¶ 8. Worried that she could not adequately supervise her students in this condition, she ended the shopping trip early. Id. at ¶¶ 8-10. Despite feeling dizzy, she drove herself home. Id. at ¶ 11.

After this shopping event, Ms. Hibbard's condition did not improve. At first, a doctor at her primary care facility diagnosed her with sinusitis and prescribed an antibiotic for her. (Pet'r's Ex. 23 at 225.) When two antibiotics proved unhelpful, Ms.

Hibbard went to the emergency room at Brigham and Women's Hospital on December 12, 2003. Dr. Schoenbaum was concerned that Ms. Hibbard may have Guillain Barrè Syndrome ("GBS"), a neurological and autoimmune disorder associated with progressive weakening or paralysis, see Dorland's, supra, at 1832, but Ms. Hibbard's neurological exam was normal, leading the treating physician to conclude that GBS "was unlikely" and to clear her for discharge. (Pet'r's Ex. 23 at 27.) The next day, however, an ambulance took Ms. Hibbard to the hospital after she experienced breathing difficulty, and this time, doctors performed an extensive workup. (Pet'r's Ex. 25 at 3; Pet'r's Ex. 33 ¶ 16.) When neurological tests revealed nothing abnormal, doctors recommended that Ms. Hibbard receive a psychiatric evaluation. (Pet'r's Ex. 23 at 21.)

The psychiatrist found that Ms. Hibbard's thought processes were "organized and logical," that she "d[id] not meet diagnostic criteria for either a mood or anxiety disorder," and that her condition did not warrant the prescription of antidepressant or antianxiety medications at that time. <u>Id.</u> at 72-73. However, remaining debilitated by her symptoms for the following months, Ms. Hibbard began "experiencing anxiety and depression secondary to the symptoms," according to Dr. Schoenbaum. <u>Id.</u> at 251.

Meanwhile, Ms. Hibbard continued to see medical specialists whom she hoped could diagnose and treat her physical symptoms. First, on March 11, 2004, she saw Dr. Louise Ivers, a specialist in infectious diseases at Brigham and Women's Hospital. (Pet'r's Ex. 23 at 176-77.) Dr. Ivers was unable to determine any particular diagnosis but concluded "it is unlikely that any known infectious disease entity [was] the cause of [Ms. Hibbard's] symptoms." Id. at 177. On April 6, 2004, Ms. Hibbard saw Dr. Brian Kim, an endocrinologist at Brigham and Women's Hospital, who had "no clear endocrine explanation for Jennifer's symptoms." Id. at 173-74. Dr. Mary Ampola, a metabolic specialist whom Ms. Hibbard saw on April 15, 2004, proposed that Ms. Hibbard's symptoms "are suggestive of a mitochondrial disorder." (Pet'r's Ex. 20 at 4.) Dr. Steven Rauch, an ear, nose and throat specialist whom Ms. Hibbard saw on April 16, 2004, however, thought Ms. Hibbard's condition was "a case of migraine related dizziness." (Pet'r's Ex. 59 at 1.)

By the end of April 2004, Ms. Hibbard's doctors seemed more focused on neurological disorders – specifically, disorders of the autonomic nervous system. On April 23, 2004, Ms. Hibbard saw Dr. Mark Creager, a cardiovascular physician, who evaluated her for mitral valve prolapse and dysautonomia. (Pet'r's Ex. 23 at 159.) Dr. Creager concluded that "[s]he does not have clinical or echocardiographic evidence of mitral valve prolapse" and that "she does not have any clear-cut evidence of any dysautonomic syndromes, though admittedly dysautonomia is a difficult diagnosis to make." <u>Id.</u> at 160. On May 10, 2004, Ms. Hibbard saw Dr. Richard Lewis, a specialist in otology, neurotology, and otoneurology. (Pet'r's Ex. 59 at 2-3.) Dr. Lewis recommended that Ms. Hibbard "be evaluated by someone with expertise in autonomic function given her prominent fatigue, lightheadedness, palpitations and temperature

irregularities." <u>Id.</u> On June 1, 2004, Ms. Hibbard saw Dr. Louis Caplan, a neurologist at Beth Israel Deaconess Medical Center. (Am. Pet. ¶ 19.) Dr. Caplan believed that Ms. Hibbard "had a postinfectious neuropathy² with autonomic features," which he further described as "a kind of Guillain Barrè with partial dysautonomia." (Pet'r's Ex. 7 at 2.) He referred her to GBS expert Dr. Kenneth Gorson at St. Elizabeth's Medical Center. <u>Id.</u>

Ms. Hibbard saw Dr. Gorson on June 7, 2004. (Pet'r's Ex. 3 at 2.) Dr. Gorson performed a detailed neurological examination, which was mostly normal. <u>Id.</u> Heart rate variability testing, however, showed results on the "borderline" between normal and abnormal. <u>Id.</u> Although Dr. Gorson noted "[i]t is certainly possible that she developed a modest dysautonomic neuropathy following a nonspecific viral illness or even the flu vaccination back in November," he was "hesitant to confirm an autonomic element to her disorder without more objective data to support such an entity." <u>Id.</u> at 3.

On June 16, 2004, Ms. Hibbard underwent testing for autonomic neuropathy, including a heart rate variability test, a Valsalva maneuver test, and a prolonged tilt table test. (Pet'r's Ex. 7 at 3.) While most of the results were normal, the tilt table test was abnormal, showing pathological sympathetic adrenergic function and exaggerated postural tachycardia (POTS), a syndrome marked by significantly increased heart rate upon standing. (Pet'r's Ex. 7 at 3); see Dorland's, supra, at 1844, 1867. Dr. Roy Freeman, a neurologist who specializes in autonomic function and who interpreted these results, explained that although POTS may be indicative of "a mild or early autonomic neuropathy," it is a "non-specific finding" which may have resulted from one of various other causes. (Pet'r's Ex. 7 at 3-4.)

On August 12, 2004, Ms. Hibbard saw Dr. Lewis Lipsitz, who observed "Ms. Hibbard indeed has many symptoms that can be attributed to dysautonomia. Her symptoms are in part characteristic of chronic fatigue syndrome, paroxysmal orthostatic tachycardia, and/or panic attacks. These all form a constellation of disorders that can be labeled dysautonomia." Id. at 15. Dr. Lipsitz also stated, while dysautonomia is probably caused by a virus, "the cause of these conditions is not well understood." Id. He informed Ms. Hibbard that she would benefit from physical therapy as well as a vigorous exercise program. In addition, he recommended Effexor for her anxiety and consultation with her gynecologist about reinstituting a low dosage of estrogen, "since it is possible that [her ailments are an] early menopausal symptom that could be relieved by estrogen replacement therapy." Id.

² The term "neuropathy" denotes nerve damage. <u>See</u> Tr. 233, Aug. 12, 2009.

³ The Valsalva maneuver involves "forcible exhalation effort against a closed [airway]," and it tests autonomic nervous control of the heart. <u>Dorland's, supra</u>, at 1102; (Tr. 211-12, Aug. 12, 2009.)

⁴ A tilt table test measures cardiac, circulatory, and neurological responses while the patient is tilted to different angles on a tilt table. <u>Dorland's</u>, <u>supra</u>, at 1901.

On September 1, 2004, Ms. Hibbard visited another neurologist, Dr. Peter Novak. (Pet'r's Ex. 19 at 1.) After examining Ms. Hibbard, Dr. Novak assessed that Ms. Hibbard had autonomic neuropathy. <u>Id.</u> at 4. Based on the sudden onset of Ms. Hibbard's disease, Dr. Novak believed her condition was caused by inflammation but noted that "[r]elationship to flu shots remains, however, unclear." <u>Id.</u> Ms. Hibbard returned to Dr. Novak's office on September 16, 2004 for scheduled autonomic testing, including a Valsalva maneuver test, a tilt table test, and a skin biopsy. <u>Id.</u> at 6. As when Ms. Hibbard underwent testing at Dr. Freeman's office, the Valsalva maneuver test was normal, but the tilt table test was abnormal. <u>Id.</u> at 6. The tilt table test showed "moderate cardiac adrenergic and vasometer adrenergic impairment with normal cardiac cholinergic functions." <u>Id.</u> According to Dr. Novak, "[t]hese findings are suggestive of autonomic neuropathy affecting predominantly sympathetic⁵ (adrenergic) fibers." <u>Id.</u>

Although Ms. Hibbard continued to see Dr. Novak, she also sought the opinions of other doctors. On May 16, 2005, she saw Dr. Eric Cohen, a gastroenterologist, who had difficulty making sense of her extensive medical workup, but, based on Ms. Hibbard's "careful, but rapid speech," Dr. Cohen "offered her the possible diagnosis of hypomania or manic depressive disorder potentially contributing to [her condition]." (Pet'r's Ex. 24 at 1.) On November 3, 2005, she sought the opinion of Dr. Russell Chin, a neurologist with expertise in peripheral neuropathy, who performed EMG (electromygram)/nerve conduction studies, obtained skin biopsies to evaluate for small fiber neuropathy, and ordered blood work to test for antibodies associated with various illnesses. (Pet'r's Ex. 8 at 5-6.) All results were normal, except for a high DNase-B antibody titer, which Dr. Chin noted was "non-diagnostic in isolation" and could be repeated. Id. at 2. Dr. Chin made no definitive conclusions regarding Ms. Hibbard's diagnosis, but he stated "[t]he best case scenario is that she had a monophasic illness and will slowly improve or stabilize." Id.

Ms. Hibbard's medical files indicate that she saw Dr. Novak regularly until at least 2009. <u>See</u> Pet'r's Ex. 50 at 13. Although Dr. Novak's initial assessment was that Ms. Hibbard had autonomic neuropathy, without explanation, Dr. Novak instead began recording "autonomic dysfunction" in 2005 and 2006, and "dysautonomia" in 2007 through 2009. (Pet'r's Ex. 19 at 49, 60, 67; Pet'r's Ex. 50 at 12.)

Ms. Hibbard still has not received a definitive diagnosis supported by a consensus of her doctors. Nevertheless, she explains that this mysterious illness "has decimated my life in every way." (Pet'r's Ex. 33 at ¶ 23.) It forced her to leave her teaching job, and

⁵ The sympathetic nervous system, along with the parasympathetic nervous system, is a component of the autonomic nervous system. The sympathetic nervous system controls the heart, stomach, gut, and sweat glands and helps the body prepare for "fight or flight." The parasympathetic nervous system regulates the pupils, bladder, and bowel and controls the body while at rest. Together, they help the body maintain homeostasis. <u>See</u> Tr. 36-37, Aug. 12, 2009.

she was only able to return to teaching part-time in 2008. <u>Id.</u> at $\P\P$ 27-28. While "every day is a struggle," fortunately, Ms. Hibbard has experienced some gradual improvement in her condition. <u>Id.</u> at \P 28.

History of Proceedings

Ms. Hibbard filed her petition on June 28, 2007, and an amended petition on February 27, 2008, for compensation under the Vaccine Act, claiming that the flu vaccination she received in November 2003 caused her to suffer a neurological demyelinating injury. See Pet.; Am. Pet. She filed extensive medical records from her physicians as well as an expert report from Dr. Thomas Morgan, a board-certified neurologist and independent medical examiner. Hibbard v. Sec'y of Health & Human Servs., No. 07-446V, 2011 WL 1766033, at *1 (Fed. Cl. Spec. Mastr. Apr. 12, 2011) ("Hibbard I"). Dr. Morgan opined that "Ms. Hibbard sustained a post influenza vaccine immunization autonomic neuropathy with signs and symptoms well documented in the record of dysautonomia." (Pet'r's Ex. 36 at 5.)

Respondent filed its Rule 4(c) report on April 28, 2008, contending that Ms. Hibbard does not merit compensation because she has not suffered demyelination and her injury was not caused by the flu vaccine. (Resp't's Report at 14-19.) On December 1, 2008, Respondent submitted the expert report of Dr. Vinay Chaudhry, a professor of neurology at the Johns Hopkins University School of Medicine with board certifications in neurology, neuromuscular diseases, clinical neurophysiology, and electrodiagnostic medicine. Hibbard I at *1; Resp't's Ex. A. Dr. Chaudhry opined that Ms. Hibbard's constellation of symptoms indicated no unifying diagnosis and that "there is no causal link between the flu vaccine and her multiple symptoms." (Resp't's Ex. A at 5.)

Special Master Moran held hearings on August 12, 2009 and February 23, 2010 to receive the expert testimony of Dr. Morgan and Dr. Chaudhry. Ms. Hibbard filed her post-hearing brief on June 21, 2010, Respondent filed its post-hearing brief on September 7, 2010, and Ms. Hibbard filed a response brief on September 21, 2010. On April 12, 2011, the special master issued his decision denying compensation. The special master found that Ms. Hibbard suffered from POTS, a type of dysautonomia. Hibbard I at *1, 8. However, he reasoned that "[a] preponderance of the evidence supports a finding that Ms. Hibbard does not have autonomic neuropathy," and because Ms. Hibbard's medical theory causally connecting the vaccine to her dysautonomia relies on a finding of autonomic neuropathy, "the remainder of her case ceases to be logical." Hibbard I at *7-9.

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⁶ Demyelination is the destruction, removal, or loss of the covering of certain nerve cells. <u>See Dorland's, supra</u>, at 486, 1701.

On May 12, 2011, Ms. Hibbard filed a motion for review of the special master's decision. Respondent filed a response to Ms. Hibbard's motion on June 13, 2011. The Court heard oral argument on July 21, 2011.

Contentions of the Parties

On review, Ms. Hibbard asserts three main arguments. First, she argues that the special master's preemptive determination that her dysautonomia was not caused by autonomic neuropathy without ever reaching the Althen test for causation is not in accordance with law. (Pet'r's Mem. of Objections 15-19.) Ms. Hibbard distinguishes her case from Broekelschen v. Sec'y of Health & Human Servs., 618 F.3d 1339, 1346 (Fed. Cir. 2010), a decision cited by the special master when he observed "special masters may find whether a preponderance of evidence supports any proposed diagnosis before evaluating whether a vaccine caused that illness." (Pet'r's Mem. of Objections 16 (quoting Hibbard I at *7).) Broekelschen, Ms. Hibbard asserts, was unusual because the parties proposed two potential diagnoses, each with a completely different etiology than the other, whereas both parties in this case agree that Ms. Hibbard has dysautonomia. Id. at 16-18. Ms. Hibbard contends that the Federal Circuit in Broekelschen permitted special masters to make a preliminary diagnosis "only in cases where the underlying injuries differ significantly in their pathology." Id. at 18.

Second, Ms. Hibbard argues that the special master's factual finding that she does not suffer autonomic neuropathy is arbitrary and capricious in light of the dozens of references to autonomic neuropathy throughout Ms. Hibbard's medical records. <u>Id.</u> at 19-23. By ignoring these references, Ms. Hibbard contends that the special master failed to consider relevant evidence showing that she has autonomic neuropathy. <u>Id.</u> at 23.

Third, Ms. Hibbard asserts that if the Althen test is properly applied, her claim merits compensation. Id. at 25-35. She argues that Dr. Morgan presented a medical theory causally connecting the vaccination and the injury, thus satisfying prong one of Althen. Id. at 27. Specifically, Dr. Morgan testified that the flu vaccine, through molecular mimicry, caused Ms. Hibbard's immune system to attack normal sympathetic nerve tissue, damaging those nerves and resulting in dysautonomia and POTS. Id. at 27-28. Further, Ms. Hibbard argues that her case satisfies prong two of Althen, which requires a logical sequence of cause and effect showing that the vaccine was the reason for the injury, because Ms. Hibbard had provided evidence that the flu vaccine can cause dysautonomia, that the onset of symptoms was within the appropriate time period, and that no likely alternative has been identified. Id. at 31-33. Finally, for prong three of Althen, Ms. Hibbard explained that "[t]he special master trivialized the probative significance . . . of an appropriate temporal relationship between the flu vaccine and the onset of her symptoms." Id. at 34. While Ms. Hibbard acknowledged that a strong temporal relationship is not, by itself, proof of causation, Ms. Hibbard says she has shown much more. Id. Having proven that she satisfies the three Althen prongs, and without a showing of any alternative cause for her injury, Ms. Hibbard argues, she should be compensated under the Vaccine Act. Id. at 34-35.

Respondent contends that the special master acted properly in deciding Ms. Hibbard's case based on a preliminary determination of whether she suffered autonomic neuropathy. Respondent embraces the special master's conclusion that Ms. Hibbard did not have autonomic neuropathy. (Resp't's Mem. in Resp. to Pet'r's Mot. for Review 5-7, 10-12.) Respondent opposes Ms. Hibbard's interpretation of Broekelschen, contending that a special master's authority to consider the validity of the petitioner's alleged injury does not apply only when competing diagnoses differ in their etiologies. Id. at 8. According to Respondent, this Court has always considered it "axiomatic that as a prerequisite to proving causation [for off-Table injuries], a petitioner must prove by a preponderance of the evidence the existence of the injury she claims was caused by the vaccination." Id. at 7 (quoting Devonshire v. Sec'y of Health & Human Servs., 76 Fed. Cl. 452, 454 (2007)). Further, Respondent argues that even if the Court conceives dysautonomia, rather than autonomic neuropathy, as Ms. Hibbard's injury, causation analysis nonetheless requires a determination of autonomic neuropathy as the "first link in her causation chain." Id. at 9.

Moreover, Respondent argues that the special master's reliance on Ms. Hibbard's objective testing for autonomic neuropathy was completely reasonable. These tests, according to Respondent, were mostly normal. <u>Id.</u> at 10-11. Respondent also observes that much of what Ms. Hibbard argues is evidence of autonomic neuropathy is only evidence of POTS or dysautonomia, which even her expert admitted does not necessarily signify autonomic neuropathy. <u>Id.</u> Finally, Respondent contends that as the finder of fact, the special master "has broad discretion when weighing the evidence," and because the special master's factual conclusions were reasonable, they should not be disturbed. <u>Id.</u> at 11, 17.

Standard of Review

When the Court of Federal Claims reviews a special master's decision under the Vaccine Act, the special master's factual findings are subject to a highly deferential "arbitrary and capricious" standard of review. Masias v. Sec'y of Health & Human Servs., 634 F.3d 1283, 1287 (Fed. Cir. 2011). Accordingly, "[i]f the special master has considered the relevant evidence of record, drawn plausible inferences and articulated a rational basis for the decision, reversible error will be extremely difficult to demonstrate." Id. (quoting Hines v. Sec'y of Health & Human Servs., 940 F.2d 1518, 1528 (Fed. Cir. 1991)). On the other hand, the Court "owe[s] no deference to . . . the special master on questions of law." Broekelschen, 618 F.3d at 1345. Applications of the law will be reviewed de novo. Masias, 634 F.3d at 1288.

Discussion

In the Vaccine Act, Congress contemplated two situations in which a petitioner may prove a case for injury compensation. The first occurs when a petitioner proves that she received a vaccine appearing on the Vaccine Injury Table ("Table") and, within a prescribed time period, suffered an injury listed on the Table for the vaccine. 42 U.S.C. § 300-14(a). In that case, the petitioner earns a presumption of causation. Pafford v. Sec'y of Health & Human Servs., 451 F.3d 1352, 1355 (Fed. Cir. 2006). The second situation occurs, as with Ms. Hibbard, when a petitioner shows that she received a vaccine appearing on the Table but sustained an injury not appearing on the Table or not occurring within the prescribed time period. In such a case, the petitioner bears the burden of proving that the vaccine in fact was the cause of her injury. 42 U.S.C. § 300aa-13(a)(1); Pafford, 451 F.3d at 1355. The Federal Circuit has defined the petitioner's causation burden in what is now known as the Althen test:

[Petitioner]'s burden is to show by preponderant evidence that the vaccination brought about [the] injury by providing: (1) a medical theory causally connecting the vaccination and the injury; (2) a logical sequence of cause and effect showing that the vaccination was the reason for the injury; and (3) a showing of a proximate temporal relationship between vaccination and injury.

Althen, 418 F.3d at 1278. While the special master, in applying this test, should consider the record as a whole, the petitioner is not required to rule out all alternative causes in order to meet her burden. See Walther v. Sec'y of Health & Human Servs., 485 F.3d 1146, 1149-50 (Fed. Cir. 2007) ("[W]e conclude that the Vaccine Act does not require the petitioner to bear the burden of eliminating alternative causes where the other evidence on causation is sufficient to establish a prima facie case."). If the petitioner satisfies each element of the Althen test and thus establishes a prima facie case, the burden shifts to the respondent to prove that a factor unrelated to the vaccine was the "sole substantial factor in bringing about the injury." De Bazan v. Sec'y of Health & Human Servs., 539 F.3d 1347, 1354 (Fed. Cir. 2008); see also 42 U.S.C. § 300aa-13(a).

Here, the special master, by beginning and ending his analysis with a determination that Ms. Hibbard did not suffer an autonomic neuropathy, never conducted a complete Althen analysis addressing the question of whether the flu vaccine caused her condition. See Hibbard I at *7, *9. The special master did, however, address, albeit indirectly, the second prong of Althen, which requires "a logical sequence of cause and effect showing that the vaccination was the reason for the injury." As the special master correctly noted, without a finding that Ms. Hibbard suffered autonomic neuropathy, "the remainder of her case ceases to be logical." Id. at *9. The shortcoming in Ms. Hibbard's case becomes apparent when considering the medical theory she advances to satisfy prong one of Althen. Ms. Hibbard asserts that the flu vaccine, through molecular

mimicry, caused autonomic neuropathy, which manifested as dysautonomia and POTS. (Pet'r's Mem. of Objections 27-29.) Thus, as the alleged effect of molecular mimicry and cause of dysautonomia and POTS, autonomic neuropathy is essential to a "logical sequence of cause and effect" linking Ms. Hibbard's flu vaccination to her injury. The special master, therefore, did not commit legal error by deciding Ms. Hibbard's case solely on the issue of whether she has autonomic neuropathy, the underpinning on which Ms. Hibbard's entire case hinges.

The special master's determination that Ms. Hibbard did not suffer autonomic neuropathy is a finding of fact, based upon his evaluation of the evidence. The special master found Respondent's expert, Dr. Chaudhry, more persuasive than Ms. Hibbard's expert, Dr. Morgan, particularly because Dr. Chaudhry based his opinion on the objective testing Ms. Hibbard underwent for autonomic neuropathy. In contrast, Dr. Morgan based his opinion merely on the fact that Ms. Hibbard has POTS and dysautonomia. Hibbard I at *7-8. POTS and dysautonomia, however, have more than one cause, and although they indicate a malfunction of the autonomic nerves, they do not necessarily signify damage to the autonomic nerves. Id. at *4, 8. In addressing the opinions of the treating physicians who indicated that Ms. Hibbard does have autonomic neuropathy, the special master noted that their opinions "must be weighed in the context of records from other doctors," many of whom "refrain[ed] from concluding that Ms. Hibbard had autonomic neuropathy." Id.

While another trier of fact might have evaluated the evidence differently, "[t]his Court does not reweigh the factual evidence" or "assess whether the special master correctly evaluated the evidence." Broekelschen, 618 F.3d at 1349 (quoting Munn v. Sec'y of Health & Human Servs., 970 F.2d 863, 871 (Fed. Cir. 1992)). If the special master's decision is based on evidence in the record that is "not wholly implausible," the Court will uphold the finding as not being arbitrary and capricious. Cedillo v. Sec'y of Health and Human Servs., 617 F.3d 1328, 1338 (Fed. Cir. 2010). With an extensive set of medical records from nearly twenty different doctors, many of which are inconclusive, the special master focused on the results of objective testing and the relative persuasiveness of the competing expert witnesses. The Court cannot hold that this evaluation of the evidence was arbitrary or capricious.

Ms. Hibbard emphasizes that her medical records are "replete with" references to autonomic neuropathy. (Pet'r's Mem. of Objections 20.) While this observation may be true, many of the physicians refer to autonomic neuropathy as a "possible" cause not based upon any objective testing. In other instances, the physicians merely make assumptions of autonomic neuropathy based upon other records. Many of the medical records simply are inconclusive. See, e.g., (Pet'r's Ex. 3 at 3) (Dr. Gorson) ("I would be hesitant to confirm an autonomic element to her disorder without more objective data to support such an entity."); (Pet'r's Ex. 24 at 1) (Dr. Cohen) ("I am suspicious that some of these symptoms could be psychosomatic in origin, given the extensive negative work-

up."); (Pet'r's Ex. 59 at 4) (Dr. Lewis) ("[T]he cause of her symptoms remains unclear. I don't see anything pathologic on exam and her work-up in the past has been extensive and unremarkable."). In these circumstances, the special master focused upon the records of objective testing as being the most relevant. Those records concluded that Ms. Hibbard did not have autonomic neuropathy. The special master's review of the evidence was reasonable, and therefore the Court must defer to his findings and ultimate ruling.

Conclusion

For the foregoing reasons, the Court holds that the special master's rulings were in accordance with law and that his factual findings were not arbitrary and capricious. The special master's April 12, 2011 decision denying compensation is AFFIRMED, and Petitioner's motion for review is DENIED.

Pursuant to Rule 18(b) of the Court's Vaccine Rules (found in Appendix B), the parties may submit any proposed redactions of confidential or other protected information within fourteen days from the date of this opinion before it is released for publication.

IT IS SO ORDERED.

s/Thomas C. Wheeler THOMAS C. WHEELER Judge